



WILDLIFE PROJECT

Birdhouses and Bird Furniture

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ELEVATED NESTING BIRD



INTRODUCTION

Birdhouses and bird feeders can be used to improve nesting and feeding conditions for birds. In this activity guide you will learn how to construct, place and erect bird furniture so birds will use them.

BIRDHOUSES

When it comes to nesting, birds can be divided into three groups. These groups are based on the location they select for nesting sites. Some birds such as the turkey, whip-poor-will, quail or killdeer build their nests on the ground. This group of birds is called *ground nesters*. Another group of birds is the *cavity or hole nesters*. These birds select nest sites in holes or cavities of trees. Some examples of cavity nesters are wood ducks, owls, woodpeckers and purple martins. A third group of birds is the *elevated nesters*. These birds build their nests above ground. These nests are usually constructed of twigs, grass or vines on the limbs of trees or shrubs.

Properly constructed and erected birdhouses provide excellent nesting sites for cavity nesters. There are only a few simple but important rules to follow:

1. Birdhouses can be made from a wide variety of materials. If you use wood, make sure it is treated to make it decay resistant.
2. Avoid the use of metal. Metal gets too hot and the birds could die from high temperature.
3. Provide ventilation and drainage. Several small holes in the bottom will provide drainage. Leave a crack where the sides meet the top to provide ventilation.
4. After the nesting season is over, take down your birdhouse, clean out old nest material and store for next year.
5. Fasten your birdhouses securely in the crotch of a tree, on a fence post or against the trunk of a tree.



WOODCOCK -
GROUND NEST

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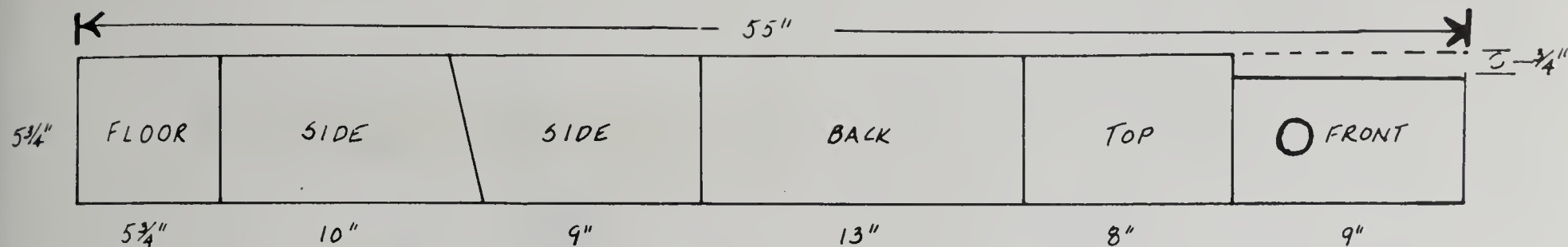


6. When selecting a location for birdhouses, make sure that food and water are close by.
7. Select a location that will be difficult for predators, such as cats, to get to the birdhouse. You may want to use a "predator guard."
8. Birdhouses should be spaced at least 30 feet apart. You can have too much of a good thing.

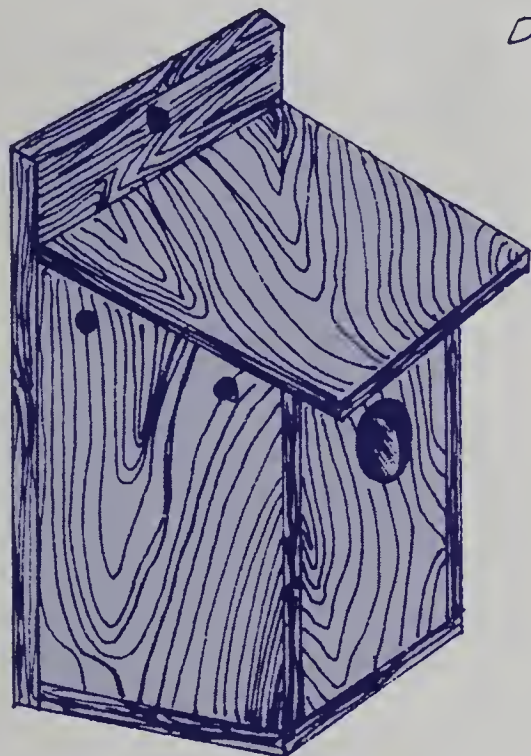
Before you build a birdhouse, learn what kind of birds are likely to nest in your area. Your leader or Extension agent should be able to help you. Use the dimensions in Table 1 to build your birdhouse. *Remember*, birds are selective in choosing their nesting sites. The materials that you use are not as important as using the right dimensions.

Table 1. Birdhouse Dimensions for Cavity Nesters

Species	Diameter of Entrance (inches)	Depth of Cavity (inches)	Floor of Cavity (inches)	Entrance Above Floor (inches)	Height Above Ground (feet)
Purple Martin	2½	6	6 x 6	1	15-20
Tree Swallow	1½	6	5 x 5	1-5	10-15
Carolina Wren	1½	6-8	4 x 4	1-6	6-10
House Wren	1¼	6-8	4 x 4	1-6	6-10
Nuthatch	1¼	8-10	4 x 4	6-8	12-20
Black-capped Chickadee	1 1/8	8-10	4 x 4	6-8	6-15
Tufted Titmouse	1¼	8-10	4 x 4	6-8	6-16
Flicker	2½	16-18	7 x 7	14-16	6-20
Downy Woodpecker	1¼	9-12	4 x 4	6-8	6-20
Hairy Woodpecker	1½	12-15	6 x 6	9-12	12-20
Red-headed Woodpecker	2	12-15	6 x 6	9-12	12-20
Screech Owl	3	12-15	8 x 8	9-12	10-30
Barn Owl	6	12-15	8 x 8	9-12	12-20
Bluebird	1 3/8	8	5 x 5	6	5-10
Crested Flycatcher	2	8-10	6 x 6	6-8	8-20
Sparrow Hawk	3	12-15	8 x 8	9-12	10-30
Wood Duck	3 x 4 (oval)	10-24	10 x 18	12-16	10-20



DESIGN FOR A BIRDHOUSE



BIRD FEEDERS

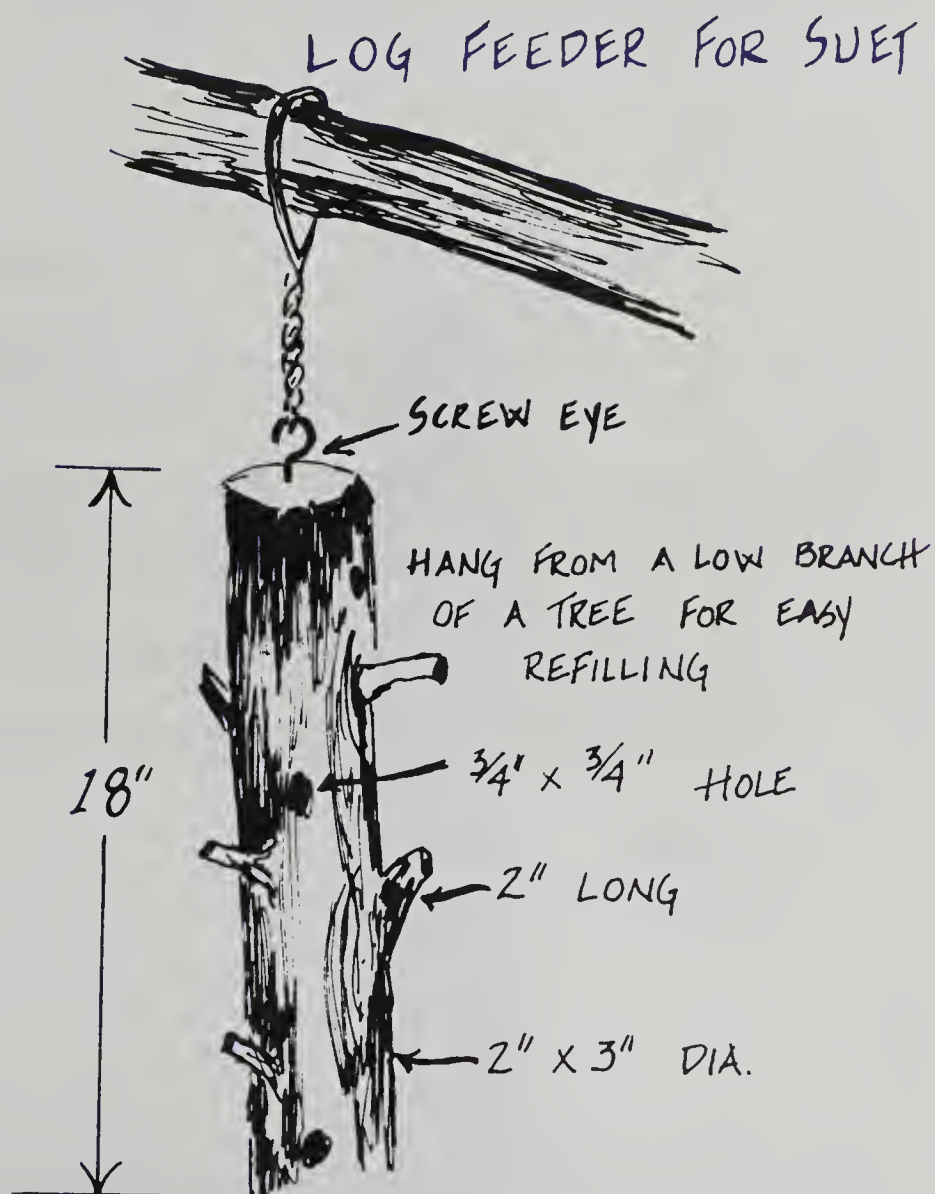
Birds require an abundant supply of food. They also eat a wide variety of different kinds of food. Some birds are seed eaters, others eat fruit, some eat insects, while still others eat animals. Bird feeders can be used to supplement natural foods and attract birds all year long.

Bird feeders can be as simple or elaborate as you want to make them. Just remember the following rules:

1. Place your feeder so cats can not harm the birds that come to feed.
2. In cold weather, once you begin feeding birds be sure to continue feeding. Birds can become dependent upon your feeder. If you do not keep a continuous supply of food in your feeder during cold weather, they could starve before they find a new food supply.
3. Use a variety of foods. For the seed eaters you can either purchase a mixture of bird seed or mix your own. A good mixture is: five pounds of sunflower seed mixed thoroughly with 25 pounds of coarse chicken scratch feed.

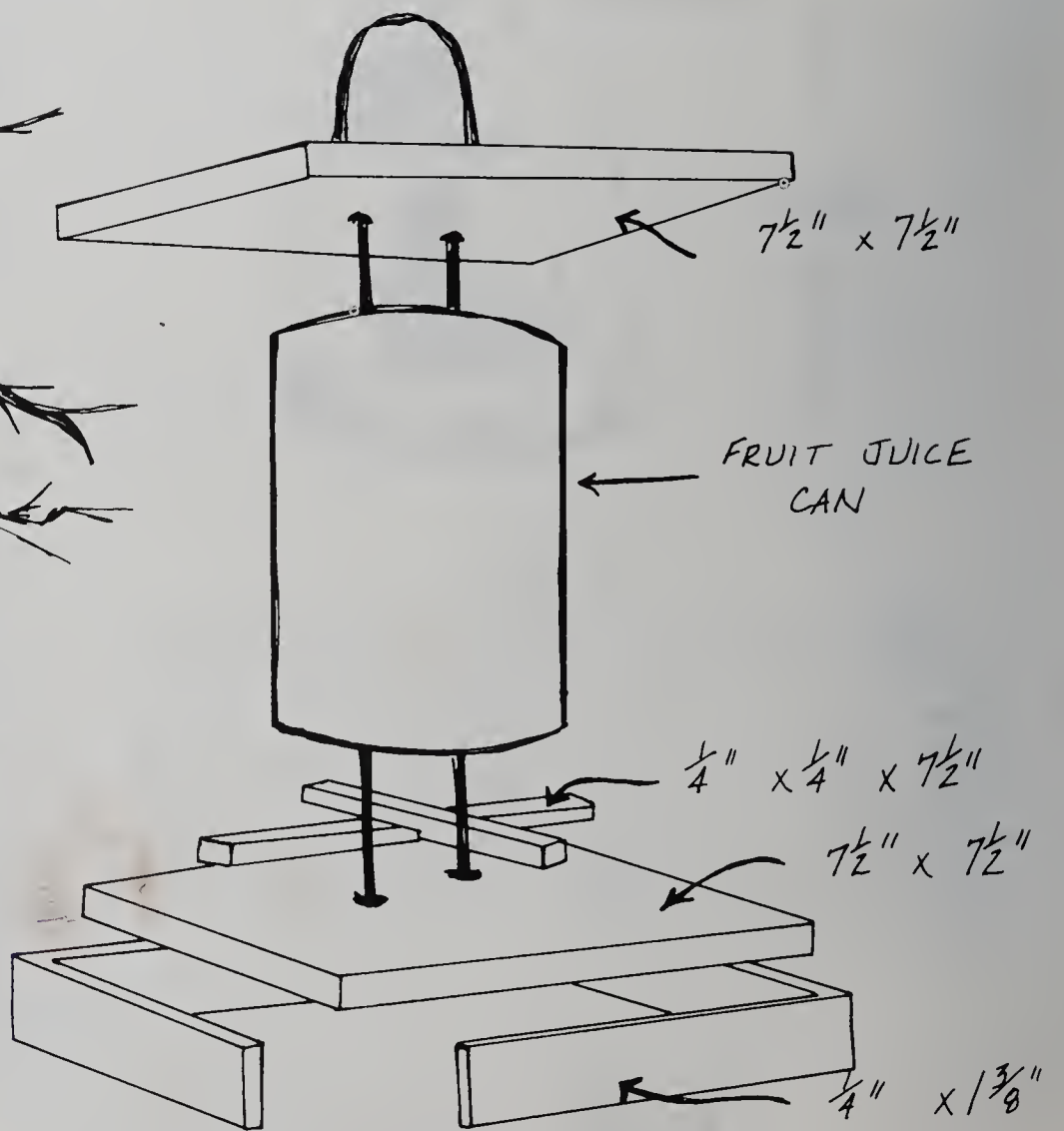
You can usually get the ingredients from a local feed store. Insect-eating birds are fond of suet, the fat trimmings from meat. Beef suet is best. You can use the suet in a suet feeder or in seed cakes. To make

seed cakes melt the suet in a pan over low heat. Pour a seed mixture into a muffin pan so that each mold is about three-fourths full of seed. Now pour the melted suet over the seeds in each muffin mold. Stir the seeds and let cool. Once cool you can place the individual seed cakes in a suet feeder, windowsill feeder or on a feeding table.

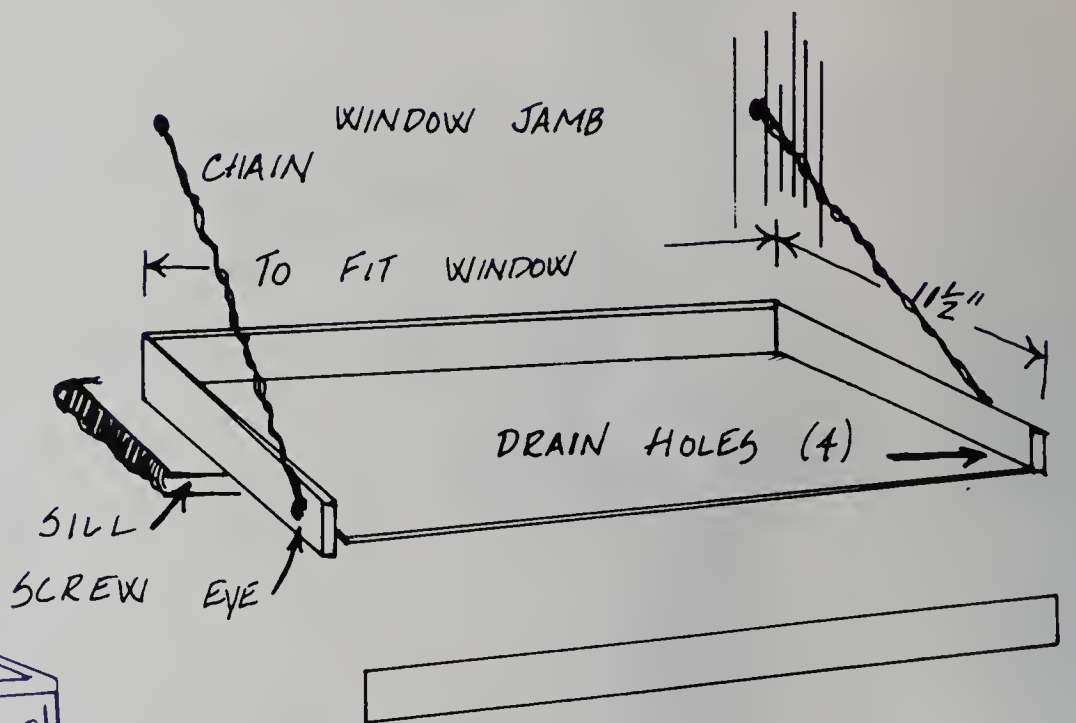
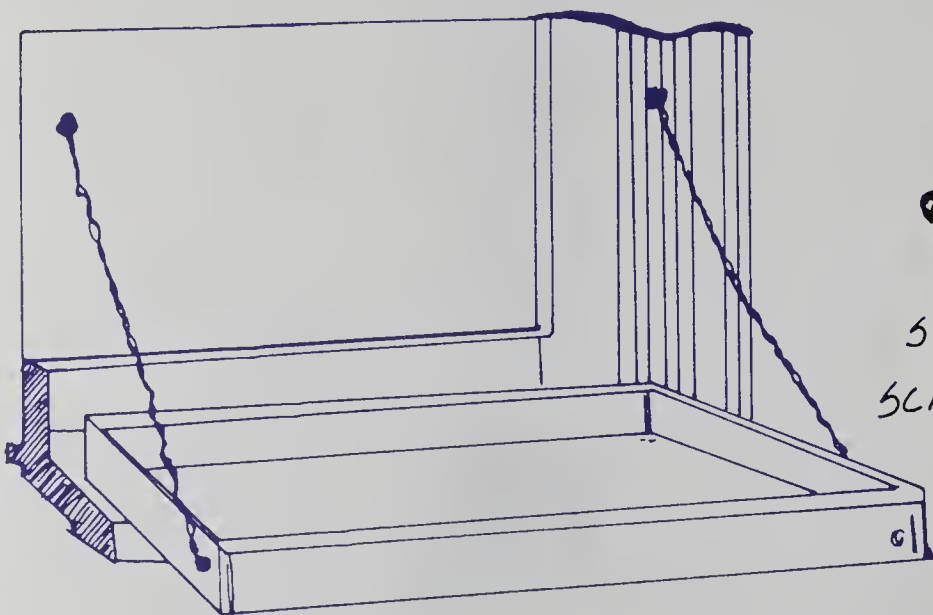




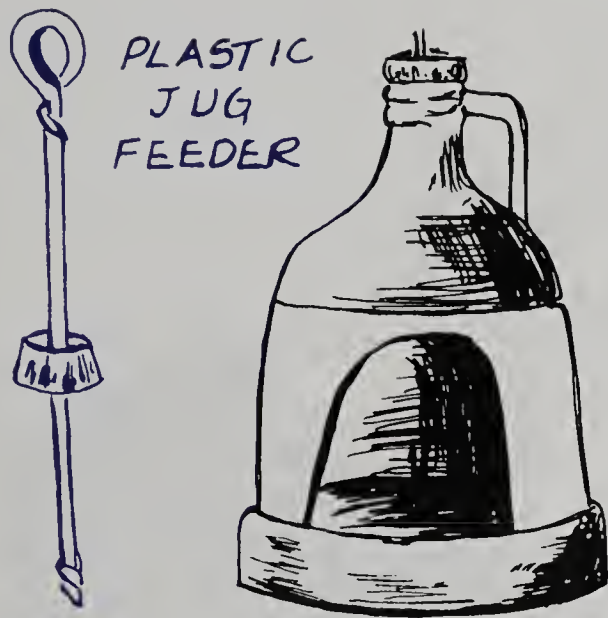
TIN CAN FEEDER



DESIGN FOR A TIN CAN FEEDER



WINDOW SILL FEEDER



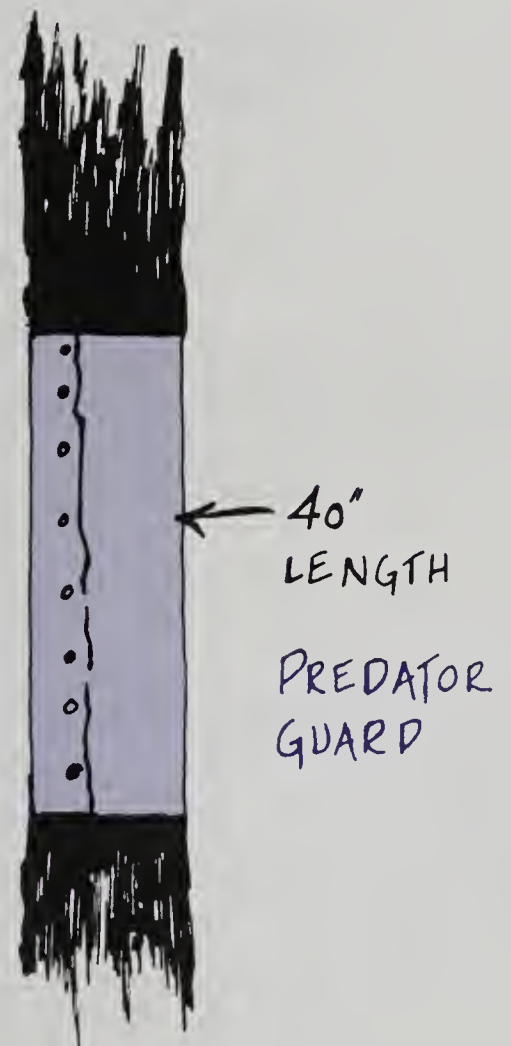
WATER

Water is important to birds for drinking and bathing. The most common mistake made with bird waterers is to make them too deep. Birds like shallow water. Be sure the water is no deeper than about three inches. Bird waterers can be made in a variety of shapes and sizes. Be sure to locate your waterer near cover so that predators, such as house cats, cannot catch any of the birds.



THINGS TO DO

1. Build and erect a birdhouse for several different kinds of birds that nest in your area.
2. Study the birds using your birdhouses. *Be careful not to disturb the birds.* Record your observations. Make notes on the following: When the birds first moved into the house; how long it took them to gather nesting materials; how many eggs are in the nest; how long it took the eggs to hatch; whether all of the eggs hatched; how long the chicks lived in the birdhouse after they hatched; whether both parents set on the eggs or only one; the role of the parents after the eggs hatched and how often the parents fed the young birds.
3. Give a demonstration on how to build a birdhouse and how to erect it.
4. Build a bird feeder for seed eaters. Record the kinds of birds, time of day, season of the year and food eaten by each bird you see at your feeder.
5. Build a suet feeder. Make the same kind of observations for the suet feeder that you did for the seed feeder. Did the same kinds of birds that used your seed feeder also feed at the suet feeder? How were they different?
6. Give a demonstration to your club on how to build different kinds of bird feeders. Show them what kinds of food to use and why.
7. Build a bird waterer. Study what kinds of birds use your bird waterer. Do they all use it for the same reason?





Cooperative Extension Service
University of Illinois at Urbana-Champaign

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ADDITIONAL READING AND REFERENCES

- Attracting Birds to Your Garden.* Sherry Gellner, editor. Lane Books, California.
- A Guide to Field Identification—Birds of North America*, by Chandler S. Robbins, Bertel Brun, & Herbert S. Zim, Golden Press, New York.
- American Wildlife and Plants*, by Alexander C. Martin, Herbert S. Zim and Arnold Nelson, Dover Publications, New York.

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Some material in this guide was adapted from existing 4-H literature.